a mounting bracket extending from said body for mounting said base module to a vehicle;

a communication module configured to be received in said central opening and comprising inlet and outlet conduits extending axially into said receptacle and corresponding inlet and outlet connectors extending axially away from said receptacle, said connectors being in fluid communication with said inlet and outlet conduits,

wherein said communication module is receivable in said central opening at a plurality of angular orientations to said body and fixable to said body at an angular orientation selected from said plurality of angular orientations.

REMARKS

Claims 1 and 11 are amended. No claims are canceled. Upon entry of the above amendment, claims 1 - 28 are presented for reconsideration by the Examiner.

Plain Meaning

As an initial matter, Applicants respectfully direct the Examiner's attention to MPEP §2111.01 entitled "Plain Meaning." "When not defined by applicant in the specification, the words of a claim must be given their plain meaning. In other words, they must be read as they would be interpreted by those of ordinary skill in the art." In re Sneed, 710 F.2d 1544, 218 USPQ 385 (Fed. Cir. 1983). MPEP § 608.01(o) requires that "the meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import; and in mechanical cases, it should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies." §608.01(o) goes on to state: "No term may be given a meaning repugnant to the usual meaning of the term."

Applicants have employed terminology that is commonly used in the art to claim the invention. Applicants have not used a confusing variety of terms for

the same thing. The terminology used by Applicants is consistent with that used in the prior art and would be readily understood by those of skill in the art. For example, U.S. Patent No. 5,302,284 to Zeiner (hereinafter Zeiner) discloses a "fuel filter assembly 10" comprising "a base 12 and a disposable cartridge 14". (Zeiner, column 3, lines 2-4) "The base 12 is a cast component forming an inverted cup-like receptacle which includes a generally cylindrical skirt 20 defining a lower receiving cavity for upper portions of the disposable cartridge."

Applicants' specification uses very similar terminology to describe the invention as follows: ". . . a novel base module for receiving a filter cartridge in a filter assembly such as a fuel filter assembly." "The base module defines a receptacle for receiving a filter cartridge and comprises a centrally disposed communication module, a body having a central opening for receiving the communication module and inlet and outlet fittings." "The body includes molded mounting brackets, an axially projecting cylindrical wall, which surrounds a receptacle for receiving the filter cartridge and a lip structure for retaining the received cartridge." (Specification, page 2, lines 18-31)

"As illustrated in Figures 5 and 6, a preferred embodiment of the base module 10 is assembled from four molded components: a body 36, a communication module 16, an inlet fitting 22 and an outlet fitting 24. The body 36 forms the outer cylinder-shaped portion of the base module 10. The body 36 surrounds and is integrally joined to the communication module 16 to form a structure adapted for receiving and mating with a replaceable filter cartridge 12." (Specification, page 6, line 26 – page 7, line 1)

Claims 1, 2 and 11 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,302,284 to Zeiner et al (hereinafter Zeiner). Zeiner discloses a fuel filter assembly 10 with spring-loaded retention system for retention of a disposable filter cartridge 14 to a filter base 12. Zeiner discloses a filter base configured as a single unit 12. The base 12 receives the upper shell section 56 of the disposable filter cartridge 14. The cartridge 14 is retained to the base 12 by a collar 16 that engages a peripheral roll seam 60 of the filter cartridge

14. The filter assembly configuration illustrated in Zeiner would be well understood by those of skill in the art.

Claim 1 recites as follows:

> A **base module** for removably receiving a disposable **filter cartridge** to form a **filter assembly**, said **base module** comprising:
>
> a body defining a cartridge receptacle and a central axial opening surrounded by a coaxial lip;
>
> a mounting bracket extending from said body for mounting said base module to a vehicle;
>
> a communication module receivable in said body central axial opening at a plurality of angular orientations to said body, said communication module including a skirt which mates with said lip, an inlet conduit extending axially into said receptacle, a corresponding inlet fitting defining a fluid passageway extending away from said receptacle and an outlet fitting defining a fluid passageway extending away from said receptacle,
>
> wherein said communication module is received in said body and fixed to said body to form said **base module**. (emphasis added)

The Examiner is not permitted to ignore the "plain meaning" of claim terms

Claim 1 is clearly directed to a "base module", not a filter assembly. As demonstrated by the consistent use of terminology in the prior art, in Applicants' specification and in the claims being examined, the term "base module" would not be interpreted by those of skill in the art to include the collar 16 and filter cartridge 14 of Zeiner. It is clear from reading Zeiner that a base 12 is not a filter cartridge 14 and these components are considered distinct from each other. When a filter cartridge 14 is mounted to the base 12, they form a filter assembly 10. (Zeiner, column 3, lines 2 – 4)

The primary component of the base 12 of Zeiner is clearly a unitary, e.g., single piece article. The unitary base 12 receives an inlet fitting 22 axially. An outlet fitting 32 is received by the base module 12 radially offset from the inlet

fitting 22. Zeiner should be considered for what it teaches those of skill in the art regarding the base 12 of the filter assembly. Zeiner does not disclose, teach or suggest a base configuration as recited in claim 1.

The 35 U.S.C. §102 rejection made by Examiner Revis on April 4, 2002 differs significantly from the "clarification" made by Examiner Cecil on December 26, 2002

Examiner Revis properly interpreted the claim terminology "base module" to correspond to the "base 12" disclosed in Zeiner. The problem with Examiner Revis' rejection is that she could not identify the recited "communication module" in Zeiner. This is because the "communication module" does not exist in Zeiner. Zeiner is part of the prior art disclosed in Applicants' specification. The prior art, as typified by Zeiner, disclose one-piece cast or molded bases with cast or molded internal passages. Inlet and outlet fittings and internal conduits are fitted to the cast or molded base to provide fluid communication pathways to and from a received filter cartridge. The radially inward portion of the cast base 12 of Zeiner corresponds to the "communication module" recited in claim 1. There is no reference numeral for this portion of the Zeiner base 12 **because the Zeiner base 12 major component is a unitary part.** Being a single component, the relationships between the "body" and the "communication module" recited in claim 1, e.g., "a communication module receivable in said body central axial opening at a plurality of angular orientations to said body" cannot be achieved in the Zeiner base 12.

Examiner Cecil reproduces Zeiner Figure 1 on page 3 of the Office Action mailed December 26, 2002. Figure 1 is described in Zeiner as "an elevated sectional view of a fuel filter assembly in accordance with the present invention." (Zeiner, column 2, lines 50-51) Examiner Cecil points to reference numeral 14 (which Zeiner refers to as "the disposable cartridge 14") and states "element 14 can be considered 'a body' defining a receptacle including a filter cartridge 74 therein." Reference numeral 74 is used by Zeiner to indicate "a filter element."

The disposable cartridge 14 of Zeiner surrounds the filter element 74 with a sealed housing formed from "cooperating upper and lower cup-like shell sections 56, 58." The shell sections "are joined along a circumferential roll seam which forms a shoulder 60." (Zeiner, column 3, lines 52-56) One of skill in the art would not interpret the claim language "disposable filter cartridge" as corresponding to the "filter element 74" that is clearly an internal component of a sealed "disposable filter cartridge 14".

According to claim 1, the "communication module" is received in the "central axial opening" of the "base module" "body" and includes "a skirt which mates with said lip, an inlet conduit extending axially into said receptacle, a corresponding **inlet fitting defining a fluid passageway extending away from said receptacle and an outlet fitting defining a fluid passageway extending away from said receptacle.**" (emphasis added) It is the **communication module** including the recited skirt, inlet conduit, inlet fitting, and outlet fitting that is "receivable in said body central axial opening at a plurality of angular orientations to said body ." Examiner Cecil's interpretation of Zeiner does not make sense because the "body" he identifies is the disposable cartridge 14, while the inlet and outlet fittings he identifies (22/24 and 26/32 respectively) are secured to the base 12. According to the recitations of claim 1, the recited "body" and "communication module" fit together to form "said base module". The claim also makes clear that the "base module" is for "removably receiving a disposable filter cartridge to form a filter assembly". Applicants are not claiming the filter assembly, only the base module.

Further, claim 1 recites "a mounting bracket extending from said body for mounting said base module to a vehicle." The mounting bracket 50 identified by the Examiner extends from the base 12 of Zeiner. Previously, the Examiner identified the filter cartridge 14 as the "body" recited in claim 1. Clearly the bracket 50 of Zeiner does not extend from the filter cartridge 14.

The structures in Zeiner (and renamed by Examiner Cecil) simply do not meet the limitations recited in claim 1 as quoted and discussed above.

Significantly, the Examiners can identify no reference numeral in Zeiner corresponding to a "communication module" as that term would be understood by one of skill in the relevant art with reference to Applicant's specification.

In sum, it cannot be argued that one of skill in the art would consider the configuration disclosed in Zeiner to anticipate that recited in claim 1. Zeiner discloses only a unitary base module as is typical of the prior art. Zeiner does not disclose, teach or suggest the recitations of claim 1 as quoted and discussed above.

The legal requirements for a 35 U.S.C. §102 rejection of claim 1 have not been met by either Examiner Revis or Examiner Cecil rejections

MPEP §2131 states the legal requirements for an anticipation rejection as follows: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdagaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In responding to Examiner Revis' rejection, Applicants pointed out the insufficiencies of the prior art in view of the claim language. In particular, the Revis rejection fails to identify the "communication module" as recited in claim 1. The Revis rejection also fails to identify where Zeiner teaches the relationships between the "body" and the "communication module" recited in claim 1.

Applicants have discussed above the inadequacies of the final rejection made by Examiner Cecil. In particular, the Cecil rejection ignores the "plain meaning" of the claim terms. Parts clearly identified by well-understood terms in the Zeiner reference are taken out of context and used to anticipate claim terms in a manner contrary to the "plain meaning" of the claim terms and contrary to the understanding of one of skill in the art. For example, the disposable cartridge 14 is stated to anticipate the claim term "a body." In claim 1, "a body"

is recited as part of the claimed "base module". The Cecil rejection also fails to identify the "bracket extending from said body" as recited in claim 1.

The limitations and relationships recited in claim 1 cannot be ignored.

Claim 1 is neither anticipated nor obvious in view of the art cited by the Examiner

Claim 1 is not obvious in view of the art cited by the Examiner. The art does not disclose, teach or suggest a base module comprising a body and a received communication module as recited in claim 1. The relationships between the body and communication module are not disclosed, taught or suggested in the art cited by the Examiner.

Claim 1 is patentable over the art cited by the Examiner.

Claims 2 - 10 depend from claim 1 and are patentable for at least the reasons stated in support of claim 1.

Neither Examiner has satisfactorily dealt with the recitations of claim 5

Claim 5 recites as follows:

> The base module of claim 1, wherein said communication module is joined to said body by an ultrasonic weld.

The final rejection relies on a filter assembly 10 comprising a base 12 and a received filter cartridge 14 to "anticipate" the "base module" of claim 1. The interpretation of Zeiner that is the basis for the final rejection renders the recitations of claim 5 nonsensical. No explanation is given for why one of skill in the art would want to "ultrasonically weld" the disposable filter cartridge 14 (which is necessary to anticipate the recited 'communication module') to the base 12. Such a relationship is contrary to all the teaching in the art. This awkwardness arises from interpreting the prior art and the claim language without regard to the "plain meaning" of the claim terms.

Claim 11 is patentable f r the reasons stated in supp rt of claim 1

Claim 11 recites as follows:

> 11. A base module for a filter assembly comprising:
> a body defining a cartridge receptacle and a central opening;
> a mounting bracket extending from said body for mounting said base module to a vehicle;
> a communication module configured to be received in said central opening and comprising inlet and outlet conduits extending axially into said receptacle and corresponding inlet and outlet connectors extending axially away from said receptacle, said connectors being in fluid communication with said inlet and outlet conduits,
> wherein said communication module is receivable in said central opening at a plurality of angular orientations to said body and fixable to said body at an angular orientation selected from said plurality of angular orientations.

Claim 11 is clearly directed to a "base module" not a filter assembly or a filter cartridge.

As discussed above, Zeiner discloses only a unitary base 12. The Zeiner base 12 cannot disclose, teach or suggest the limitations of claim 11.

The flaws in the respective rejections stated above with respect to claim 1 are equally applicable to claim 11. The Revis rejection fails to identify the communication module recited in claim 11. The Cecil rejection finds the recited "communication module" in a disposable filter cartridge by ignoring the plain meaning of the claim terms.

Zeiner does not disclose, teach or suggest the recitations of claim 11 as quoted and discussed above.

Claims 12 – 20 depend directly or indirectly from claim 11 and are patentable for at least the reasons stated in support of claim 11.

Claim 13 is patentable for the reasons stated in support of claim 5

Claim 13 recites:

> The base module of claim 11, wherein said communication module is joined to said body by an ultrasonic weld.

Applying the reasoning of the final rejection to the recitations of claim 13 would require one of skill in the art to ultrasonically weld a metal disposable filter cartridge to the cast metal base of Zeiner to form the recited "base module" of claim 11. Metal is not weldable by ultrasonic methods. Welding a disposable filter cartridge to a base does not make sense.

Zeiner does not disclose, teach or suggest a base module meeting the limitations of claim 13. Claim 13 is patentable for at least this additional reason.

Claim rejections under 35 U.S.C. §103

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Zeiner in view of U.S. Patent No. 5,556,541 to Ruschke (hereinafter Ruschke). Examiner Revis begins by stating "Zeiner et al discloses the base module of claim 2 as discussed above." As Applicants have demonstrated above, Zeiner **does not** disclose the base module of claims 1 or 2. Examiner Revis then states that Ruschke teaches a skirt 24 that fits closely over a lip 22 forming a joint. As an initial matter, there is simply no motivation to combine the reference teachings of Zeiner with those of Ruschke. Claim 3 is directed to a filter base module and does not include a filter element or housing members for a filter element. The Examiner's proposed motivation is as follows:

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the skirt and lip of Zeiner eta al. Form a joint, as taught by Ruschke et al. to shield the filter element by the joint and to make sure the filter element is held within the two housing members.

This proposed motivation for combining the teachings of Ruschke and Zeiner is absurd in view of the recitations of claim 3 and the claims from which it depends. Claim 1 recites "a base module" and does not include a filter element

or housing members. The proposed motivation for combining the reference teachings relies on components not present in the recited base module.

The Examiner has failed to present a *prima facie* case of obviousness for claim 3.

Claim 4 is rejected under 35 U.S.C. §103(a) as being obvious to one of skill in the art over Zeiner in view of Ruschke and further in view of U.S. Patent No. 5,766,463 to Janik (hereinafter Janik). As previously discussed, the rejection does not present a plausible motivation to combine the teachings of Zeiner with those of Ruschke. Further, even if made, the combined teachings of Zeiner and Rushke do not disclose, teach or suggest the base module of claim 3. The addition of the teachings of Janik to a combination of Zeiner and Rushke for which there is no motivation and which does not result in the base module of the previous claims from which claim 4 depends cannot result in a *prima facie* case of obviousness with respect to claim 4. Claim 4 is therefore patentable over the Examiner's proposed combination.

Claims 5 and 13 - 14 are rejected under 35 U.S.C. §103(a) as being obvious to one of skill in the art over Zeiner in view of U.S. Patent No. 5,635,058 to Bowman (hereinafter Bowman). Claim 5 depends from claim 1 and is patentable for at least the reasons stated above in support of claim 1. Zeiner simply does not disclose, teach or suggest the recitations of claim 1. Adding Bowman to the disclosures of Zeiner cannot, therefore, present a *prima facie* case of obviousness with respect to claim 5.

Claims 13 - 14 depend from claim 11 and are patentable for at least the reasons stated above in support of claim 11. Zeiner does not disclose, teach or suggest the recitations of claim 11. The addition of Bowman to the teachings of Zeiner cannot present a *prima facie* case of obviousness with respect to claims 13 and 14.

Claims 6 - 10, 12, 15 - 22, 24 - 25 and 27 - 28 are rejected under 35 U.S.C. §103(a) as being obvious to one of skill in the art over Zeiner in view of U.S. Patent No. 5,882,515 to Lacy et al (hereinafter Lacy). As an initial matter,

claims 6 - 10 depend from claim 1 and are patentable for at least the reasons stated in support of claim 1 above. Claims 12 and 15 - 20 depend directly or indirectly from claim 11 and are patentable for at least the reasons stated in support of claim 11 above.

Claims 22, 24, 25, 27 and 28 depend directly or indirectly from independent claim 21, the patentability of which will be discussed below.

As previously discussed with reference to independent claims 1 and 11, Zeiner fails to disclose, teach or suggest the recitations of claims 1 and 11. Claims 6 - 10 are patentable for at least the reasons stated in support of claim 1, while claims 12 and 15 - 20 are patentable for at least the reasons stated in support of claim 11. The Examiner's proposed combination of Zeiner and Lacy does not disclose, teach or suggest the recitations of the underlying independent claims, be it claim 1 or claim 11. For a specific discussion of the deficiencies of Zeiner, see the discussion of the anticipation rejection of claims 1 and 11 above. Each of the Examiner's proposed obviousness rejections of claims 6 - 10, 12 and 15 - 20 is entirely deficient due to its reliance on Zeiner to teach the base module of the underlying independent claim 1 or 11.

Independent claim 21 is directed to "A method for manufacturing a base module for a filter cartridge" comprising the steps in pertinent part as follows:

> a) providing a communication module having inlet and outlet fittings;
> b) providing a body adapted to receive and mate with said communication module in a plurality of angular orientations to said communication module;
> c) mating said communication module to said body at an angular orientation selected from said plurality of angular orientations; and
> d) joining said communication module to said body.

Claim 21 recites a flexible manufacturing method by which a base module may be configured in multiple arrangements using component parts configured to fit together in "a plurality of angular orientations". Zeiner teaches a cast

unitary base for a filter cartridge as discussed above with reference to independent claims 1 and 11. Examiner Revis identifies "the base module" as corresponding to component 12 of Zeiner; the communication module is again not identified by a reference numeral; the inlet and outlet fittings are identified by reference numerals 22, 32; and the body is also identified by the reference numeral 12. One difficulty with Examiner Revis' rejection is that the inlet and outlet fittings mount directly to a one-piece base component 12. A further difficulty is that she uses the same, single piece component to teach both the "base module" and the "body" recited in claim 21. Further, the recited communication module has "inlet and outlet fittings" and claim 21 recites the step of "mating the communication module to said body at an angular orientation selected from said plurality of angular orientations." Zeiner does not disclose a component corresponding to the recited "communication module" and cannot disclose the mating of the communication module to the body as recited in claim 21.

Zeiner does not disclose, teach or suggest the recitations of method claim 21.

Claims 22 - 28 depend directly or indirectly from claim 21 and are patentable for at least the reasons stated in support of claim 21.

Claim 22 recites the further limitations of:

> wherein said **communication module** includes a pair of integral, axially extending inlet and outlet connectors and said inlet and outlet fittings are separate components each adapted to mate with a corresponding connector in a plurality of angular orientations to said communication module, said manufacturing method further comprising:
>
> e) mounting said inlet fitting to said inlet connector at a first angular orientation selected from said plurality of angular orientations;
>
> f) joining said inlet fitting to said inlet connector;
>
> g) mounting said outlet fitting to said outlet connector at a second angular orientation selected from said plurality of angular orientations; and
>
> h) joining said outlet fitting to said outlet connector.

Adding the disclosures of Lacy to the entirely deficient teachings of Zeiner does not disclose, teach or suggest the recitations of claim 22. Further, component 24 in Zeiner is an "inlet conduit" which "may be" an integral component with inlet fitting 22. (Zeiner, column 3, line 26-27) Since there is no component corresponding to the "communication module" recited in claim 21, the "connectors" 24, 30 identified by the Examiner cannot be part of a **communication module** that "includes a pair of integral, axially extending inlet and outlet connectors". Claim 22 is additionally patentable for at least these reasons.

The Examiner proposes combining the teachings of U.S. Patent No. 5,822,515 to Lacy et al (hereinafter Lacy) with those of Zeiner "to allow for maximum flexibility and simplicity in the routing of source and drain tubing." It is an object of Lacy to provide right-angle fittings "that can rotate independently of each other and independently of the filter body" (column 1, lines 40 - 42). Applicants' claims in fact recite joining the fittings and/or the communication module to the base at selected angular orientations. Such joining is not disclosed, taught or suggested by Lacy in combination with the entirely deficient teachings of Zeiner as discussed above. Lacy, column 4, lines 9 - 16, teaches that the L-shaped fittings are swivel fittings 28, 30. "These fittings 28, 30 can rotate independent of each other and independently of the filter body 22." Lacy simply does not disclose, teach or suggest fixing inlet or outlet fittings at any particular orientation to the communication module which is in turn joined to a body to form a base module as recited in claim 21.

In sum, the deficiencies of the Examiner's rejection of each of independent claims 1, 11 and 21 has been addressed in detail. Zeiner fails to disclose, teach or suggest the recitations of claims 1, 11 and 21. The addition of the disclosures of Ruschke, Janik, Bowman or Lacy either alone or in combination with each other does not present a *prima facie* case of obviousness

[redacted]

or anticipation with respect to any of claims 1 - 28 for all the reasons stated above.

For all the foregoing reasons, Applicants respectfully request allowance of claims 1 - 28.

Respectfully submitted,

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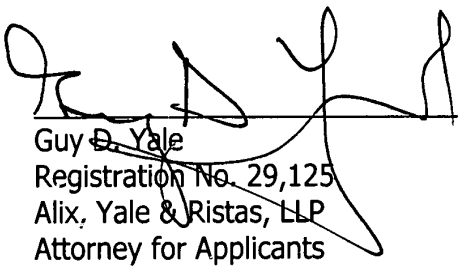

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